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Mine File

June 2, 1995

Dan L. Powell
967 South 680 West
Payson, Utah 84651

Re: Plan Review, Emery Industrial Resources, Inc., Cherry Hill Park Mine, M/049/021, Utah County, Utah

Dear Mr. Powell:

The Division has completed it's initial review of your Notice of Intention to Commence Large Mining Operations (NOI) for the Cherry Hill Park Mine, located in Utah County, Utah. After reviewing the application, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion.

R647-4-105 - Maps, Drawings & Photographs.

105.1 Topographic base map, boundaries, pre-act disturbance:

The topographic map submitted fails to accurately show the exact boundaries of both pre and post-act disturbance. Please revise this map accordingly to reflect this information. (TM)

Please describe what the border on the topographic map (assumed base map) represents (i.e., surface ownership, mineral ownership, or other)? Please identify known areas which have previously been impacted by mining or exploration activities within the proposed disturbed area. This would include pre-existing or pre-law structures. (AAG)

105.2 Surface facilities map:

The disturbed area border and/or permit border should be shown on both the base map and surface facilities maps. The borders on the current pair of maps do not match. Please modify these drawings so the borders are consistent. (AAG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.):

Please provide drawings of the typical pit cross sections during active mining operations and following final regrading/reclamation of the affected areas. (AAG)

3.15 There is no reference, discussion or indication that any hydrologic sediment and erosion control structures will be incorporated into the mining and reclamation plan. Please indicate in your plan what you will use to prevent erosion on reclaimed slopes.

Clearly identify the location of any drainages disturbed during mining and any reclamation plans for those drainages. (TM)

3.16 The application fails to identify on the topographic map supplied, the actual location of the project in relationship to the disturbance. The plan also does not contain a final reclaimed surface contour map showing proposed/projected surface elevations upon final reclamation in relation to surrounding topography. (TM)

3.17 Please provide a reclamation treatments map which identifies disturbed areas which will be reclaimed, reclamation treatments, and disturbed areas which will not be reclaimed by means of color coding or cross hatching. This map could also identify areas which are included in a variance request(s). Please provide a separate map of the variance areas if one combined drawing is too cluttered. (AAG)

R647-4-106 - Operation Plan.

106.2 Type of operations to be conducted:

Please describe the typical drilling and blasting round used in mining (length, width, depth), type of blasting agent used, maximum height of the exposed face or highwall, typical equipment used in the operations and their tasks. (AAG)

106.4 Nature of materials mined, waste and estimated tonnages:

Please provide information describing the nature (physical characteristics) of the materials to be mined or processed, including waste/overburden materials and reject materials. What is the estimated annual tonnage/volume of ore and waste materials produced? (AAG)

106.5 Existing soil types, location, amount:

The application has minimal soils information. It identifies soil depth, acreage of salvageable topsoil, estimated salvageable volume, methods used to salvage and respread topsoil, location of topsoil piles (shown on maps), and pH. It is assumed that no soil was salvaged from the existing disturbed area and that these figures are for the proposed expansion area. Please confirm these assumptions. (LMK)

106.6 Plan for protecting & redepositing soils:

The plan does not identify how the topsoil piles will be protected. At a minimum they should be seeded with a cover crop and the pile identified with a sign if not respread within a couple of months. Please describe in more detail the length of time soil will be in the stockpile before being respread and topsoil protection measures employed. (LMK)

106.7 Existing vegetation - species and amount:

The application refers to the Division's recommended seed mix for reclamation of the list of dominant vegetation species in the area. While many of the species on the revegetation list are found in the area, the recommendations were based more on the adaptability of commercial seed to site conditions, (i.e. soils, precipitation, elevation, etc.). During the Division's July 27, 1994 inspection, it was noted that mountain sagebrush is the dominant species. Other species identified from the adjacent undisturbed areas include oakbrush, elderberry, rabbit brush, bluebunch wheatgrass, Indian ricegrass, penstemon, and oregon grape. The percentage of vegetation cover, based upon a visual estimate, ranged between 40 and 50%. This conflicts with that reported in the application (12% reported). This discrepancy will need to be resolved during the next field season. (LMK)

106.8 Depth to groundwater, extent of overburden, geology:

The application fails to state or identify if any groundwater resources exist in the area. Please indicate any known local or regional groundwater resources whether it be springs, wells, etc. Has any of your drilling activities intercepted any groundwater resources to date? To what depth have you drilled the minable ore reserves? (TM)

106.9 Location & size of ore, waste, tailings, ponds:

The surface facilities map shows several stockpiles of sized materials and one stockpile of reject materials. Will these stockpiles remain at these locations throughout the life of the operation? Page 5 of the submission states 500 CY of waste materials will be generated. Is this the total volume of waste to be generated over the life of the mine or the annual volume generated? (AAG)

R647-4-107 - Operation Practices.

107.3 Erosion control & sediment control:

Erosion and sediment control must be provided both during the operational phase of mining and reclamation. In areas were the slopes appear to be less severe or almost flat in your disturbed area, it would be appropriate to use a roughened seed bed and a cover crop as a temporary measure to prevent erosion. On any slopes steeper than 2:1, it is appropriate to use some other means of protection (i.e. straw bales, silt fences, or berms to prevent offsite migration of sediments from the disturbed area during operations and prior to final reclamation). The use of geonetting or hydromulch can also be used to help stabilize soil surfaces from erosion if slopes greater than 2:1 are encountered. (TM)

107.4 Deleterious material safety stored or removed:

The application should discuss how and where the storage of fuels, lubricants, and any other deleterious materials will be located and how spills will be prevented or mitigated. (TM)

107.5 Suitable soils removed & stored:

Division calculations indicate that 3 inches of soil stripped from 4.5 acres will yield 1,815 cu. yds. of soil. The application identifies 1,200 cu. yds. will be stockpiled. This will provide slightly less than 1 inch of soil cover for reclamation (please note, all topsoil and suitable plant growth medium must be salvaged, even if it exceeds the 3 inch depth identified). The Division questions whether this amount is sufficient to establish vegetation. A borrow area may be required. To make this determination, please provide evidence of successful revegetation using only 1 inch of soil, or propose testplots that would demonstrate successful revegetation can be accomplished. Rather than spreading salvaged topsoil over pre-existing areas, it is suggested that a variance to the topsoiling and revegetation standards be requested (see variance section) for the pre-existing areas. This would allow for greater soil depth on the proposed area. (LMK)

107.6 Concurrent reclamation:

The application identifies four acres to be reclaimed annually. This area is not shown on the map(s), nor is a proposed expansion area (beyond 1995) identified. It is recommended that a mine plan identifying a 5-year sequence of mine development and concurrent reclamation be identified. This is requested given the understanding that actual disturbance may be more or less than that identified for any given year and that the total acreage/area proposed will not be exceeded without amending the permit. (LMK)

R647-4-109 - Impact Assessment.

109.1 Impacts to surface & groundwater systems:

The application is not clear in terms of providing the necessary information to assess any current impacts to surface waters or future impacts based on expansion (i.e. the lease area as shown includes the Price River and what appears to be an ephemeral drainage) Impacts to groundwater are also not clear based on the lack of resource data and any information of potentially impacted resources. This issue may be clarified by providing a detailed map of where the disturbance is located in relation to surface water drainage and identifying any groundwater resources in the immediate vicinity of the operation. (TM)

109.4 Slope stability, erosion control, air quality, safety:

Please provide information describing the impacts associated with stability of dump slopes and pit highwalls. Will any waste stockpiles remain at the time of final reclamation? If there are no impacts please state why. Please provide information or copies of the appropriate permit(s) regarding the generation and control of dust at your operations. (AAG)

R647-4-110 - Reclamation Plan.

110.1 Concurrent & post mining land use:
The application does not identify current or proposed land use for the area. From the Division's site visit, it is expected that land use in this area is grazing and wildlife habitat. This needs to be identified in the plan. (LMK)

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed:

The application does not confirm that the necessary material will be available to fill in low areas and depressions following mining, since 8-12 feet of material will be mined. Please show/explain how this is possible. (TM)

See the comment under section 105.3.11 regarding drawings or cross sections.

Please describe how roads and pads will be reclaimed (i.e. regrading, ripping with a dozer to a depth of 2 feet, etc.). Will the pit/quarry impound water after final reclamation is complete? If so, a variance to leave an impoundment that is not free-draining may be required. During previous Division site inspections the use of the reject stockpile material as a soil substitute was mentioned. This was mentioned as a possibility if the reject product could not be sold. If this material will be used in the reclamation of the mine site, please include a description of its use in the reclamation plan, including projected volume and anticipated depth of cover over the disturbed area. This material may ultimately need to be augmented with soil amendments to make it a suitable soil substitute. (AAG)

110.3 Description of facilities to be left (post mining use):

The Division cannot allow any structures to be left at the time of reclamation without a letter from the current landowner requesting that specific structures be left for his intended use. Without such documentation, detailed reclamation plans for all structures will be required. (LMK)

Page 8 of the submission states that some buildings were pre-existing and will remain, however, no pre-existing structures or disturbances were indicated on the maps or described in the text. Please delineate these features on the appropriate maps and provide a written description of them in your response. (AAG)

110.5 Revegetation planting program:

The Division will accept the recommended seed mix (Aug 5, 1994) for all revegetation work at the site. A copy of this seed mix has been attached to the application. (LMK)

R647-4-111 - Reclamation Practices.

111.8 All roads & pads reclaimed:

See comments under R647-4-110.3

111.9 Dams & impoundments left self draining & stable:

See comments under R647-4-110.2

111.11 Structures & equipment buried or removed:

See comments under R647-4-110.3

111.12 Topsoil redistribution:

See comments under R647-4-106.6

R647-4-112 - Variances.

This section of the application was not addressed. Please note, the Division cannot grant variances that are not requested and that have no documentation to justify why a variance should be granted. As discussed in the soils section, The Division could consider variances for topsoil salvage, respreading, and meeting the 70% revegetation standard for pre-existing areas (i.e., areas that had no pre-mining topsoil or vegetation cover, were disturbed by a previous operator or were impacted prior to the effective date of Utah's Mining statute - 1975). However, before these variances can be granted, you will need to provide a map which clearly identifies these areas, specifically request the variance, provide adequate justification (and documentation) for the variance, and in the case of the revegetation standard, propose an acceptable alternative standard. (LMK)

R647-4-113 - Surety.

This submission did not contain any information describing a reclamation surety estimate. The submission does not contain sufficient details to allow the Division to calculate a reclamation estimate at this time. The Division will await the reclamation treatments map and additional information describing the reclamation plan before preparing a draft reclamation estimate. It would be helpful if the operator could provide us with a preliminary estimate based upon his projected costs to reclaim the site. (AAG)

R647-4-115 - Confidential Information.

No information contained in this submission was indicated as being confidential. (AAG)

The Division will suspend further review of the Cherry Hill Park Mine NOI until your response to this letter is received. If you have any questions in this regard, please contact me, Tony Gallegos, Tom Munson, or Lynn Kunzler of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

vb
cc: Buck Rose, Utah County
M049021.LMO